Powered fiber solutions

Your network's smartest path to the edge

COMMSCOPE®

The future of your network is brightest at the edge.

From the core to the edge, your network is adding connected devices and new smart-building services all the time. The opportunities and efficiencies they offer speak for themselves—but, as they spread to locations both indoors and out, you're probably feeling the crunch caused by not having enough network access where it's needed.

You need a way to deliver higher bandwidth and greater wattage to reach those devices. CommScope solves these challenges with a complete range of powered fiber solutions designed for just the kind of high-demand powered devices that power smart networks in healthcare, hospitality, education, transportation and government environments, among others.

With CommScope powered fiber, you can drive more advanced devices closer to the network edge, indoors and out, so your facilities run smoothly and efficiently.
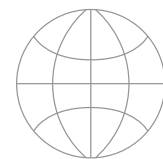
Global mobile data traffic is

estimated to balloon nearly

700% by 2022
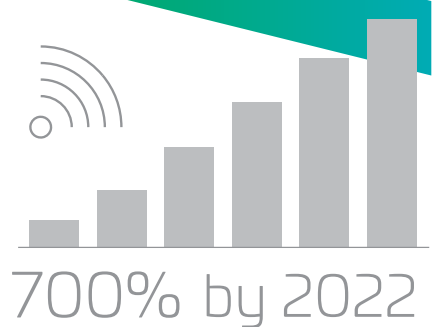
Cisco Visual Networking Index: Forecast and Trends, 2017–2022

High-capacity data.
High-wattage power.

CommScope's powered fiber solutions power your expanding network.

Network devices are popping up everywhere in buildings and across campuses—devices like small cell sites, Wi-Fi access points, IP cameras, building access and inventory controls, and countless others.
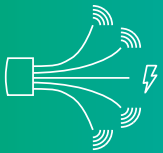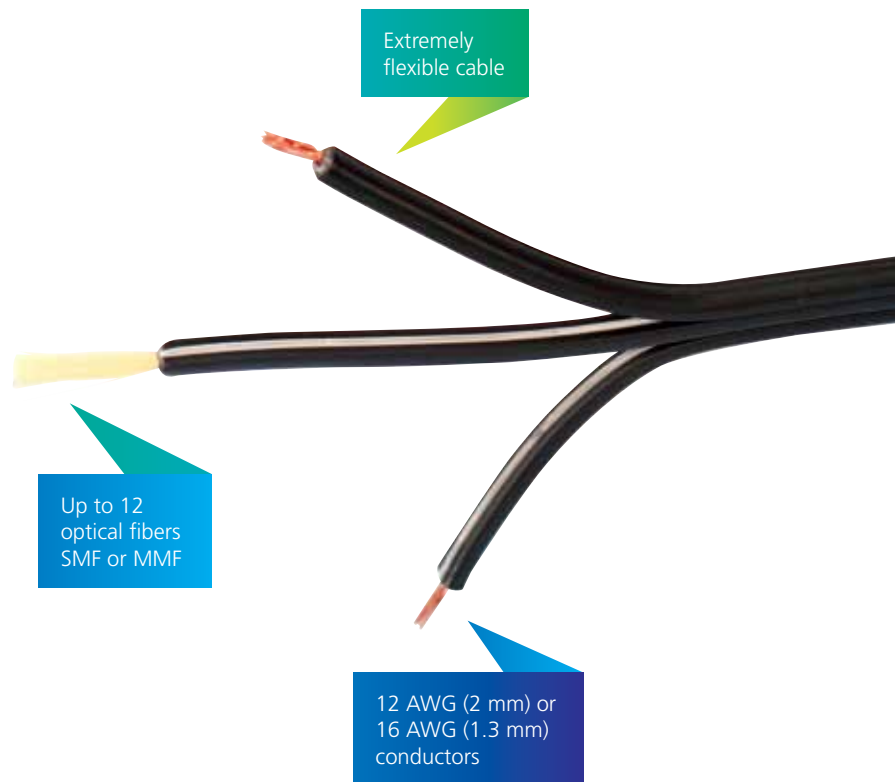
While these new applications that improve user connectivity, operational technology efficiency and property-wide safety and security, they also present you with a new and growing challenge: getting high-bandwidth data and power connectivity to every device in every location, indoors and out, with the low-latency performance needed to leverage edge network architecture.

CommScope's powered fiber solution makes it easy to meet those challenges in a single, easy-to-handle run, with options suited to weatherized outdoor deployments or plenum-rated indoor installations.

One cable run.
Infinite possibilities.

The powered fiber solution combines high-performance, low-latency fiber-optic data connectivity with a copper low-voltage dc power connection. This enables the connection of any number of powered remote devices without the need for new conduit, bulky extra cable runs or expensive electricians. With the powered fiber cable solution, your network gains access to a vast and growing ecosystem of applications, including:

· Optical LAN

· Emergency Phones

· HD security cameras

· Digital signage

· Wi-Fi access points

· Small cells

· Or virtually any low-voltage dc powered device

Extremely flexible cable

Up to 12 optical fibers SMF or MMF

12 AWG (2 mm) or 16 AWG (1.3 mm) conductors

PRACTICAL PERFORMANCE

CommScope's powered fiber solution combines singlemode or multimode fibers with electrical conductors in a single hybrid cable. This innovative solution delivers reliable fiber-optic signals to and from remote devices—along with low-voltage dc, which simultaneously powers them.

EASY DEPLOYMENTS

CommScope has merged flexible copper conductors with our high-performance, bend-tolerant fiber to make the cabling pliable and effortless to pull. Despite combining two cables into one, the powered system easily fits in standard conduit.

SIMPLE INSTALLATIONS

Used as part of a low-voltage SELV/NEC Class 2 circuit, CommScope's powered fiber solution simplifies the electrical design through use of the Powered Fiber Calculator. Installations will achieve cost reductions by eliminating the need for separate power distribution circuits.

CommScope's powered fiber also reduces material costs for separate fiber and electrical cables, and slashes conduit costs in half, because the solution can be installed anywhere Category cables are installed.

Application overview

- Complete power and data solution platform for IP devices
- Low-voltage power provided by centralized source/backup UPS
- One power supply can drive up to 32 devices simultaneously
- Extends PoE distance up to three kilometers (at 15 watts)

- Low-cost installation and setup
- Supports passive optical network (PON) applications
- Ideally suited to campus environments, airports, parking areas, stadiums, small cell base stations, fiber to the room and more
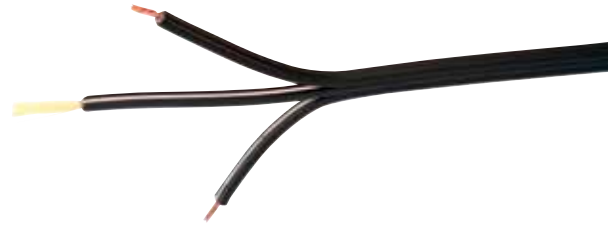

APPLICATION EXAMPLES

CAMPUS ENVIRONMENTS

SMART CITIES
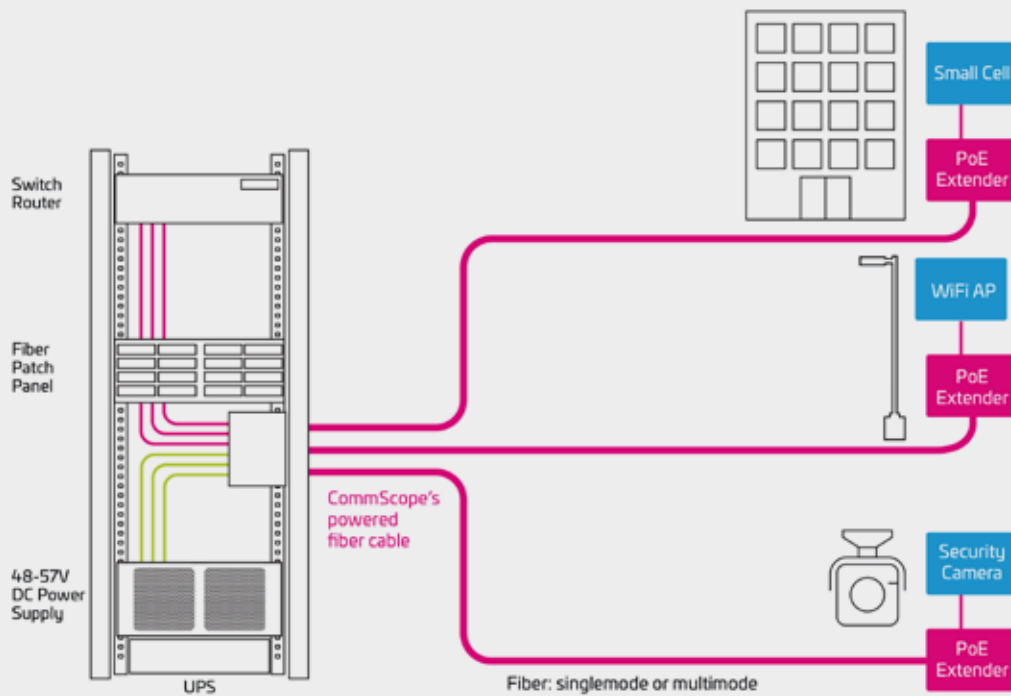
AIRPORTS
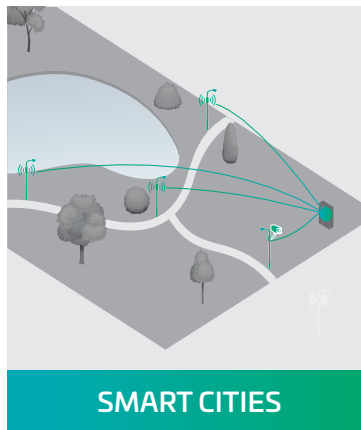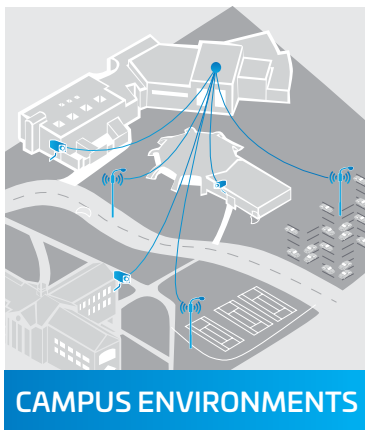
POWERED FIBER CABLE SYSTEM

- Outdoor and riser/LSZH, indoor/outdoor rated versions
- SELV and NEC Class 2 compliant
- Fast "banana peel" style cable access
- Utilizes globally existing, proven and inexpensive FTTH-style flat cable hardware

MID/Part Number	Description
PFC-S02L12	Powered Fiber Cable, Indoor/Outdoor, OS2, 2 Fibers, 2 x 12 AWG Conductors
PFC-S02L16	Powered Fiber Cable, Indoor/Outdoor, OS2, 2 Fibers, 2 x 16 AWG Conductors
PFC-S02O12	Powered Fiber Cable, Outdoor, OS2, 2 Fibers, 2 x 12 AWG Conductors
PFC-S02O16	Powered Fiber Cable, Outdoor, OS2, 2 Fibers, 2 x 16 AWG Conductors
PFC-S04L12	Powered Fiber Cable, Indoor/Outdoor, OS2, 4 Fibers, 2 x 12 AWG Conductors
PFC-S04L16	Powered Fiber Cable, Indoor/Outdoor, OS2, 4 Fibers, 2 x 16 AWG Conductors
PFC-S04O12	Powered Fiber Cable, Outdoor, OS2, 4 Fibers, 2 x 12 AWG Conductors
PFC-S04O16	Powered Fiber Cable, Outdoor, OS2, 4 Fibers, 2 x 16 AWG Conductors
PFC-S12L12	Powered Fiber Cable, Indoor/Outdoor, OS2, 12 Fibers, 2 x 12 AWG Conductors
PFC-S12L16	Powered Fiber Cable, Indoor/Outdoor, OS2, 2 Fibers, 12 x 16 AWG Conductors
PFC-S12O12	Powered Fiber Cable, Outdoor, OS2, 12 Fibers, 2 x 12 AWG Conductors
PFC-S12O16	Powered Fiber Cable, Outdoor, OS2, 12 Fibers, 2 x 16 AWG Conductors
PFC-302L12	Powered Fiber Cable, Indoor/Outdoor, OM3, 2 Fibers, 2 x 12 AWG Conductors
PFC-302L16	Powered Fiber Cable, Indoor/Outdoor, OM3, 2 Fibers, 2 x 16 AWG Conductors
PFC-302O12	Powered Fiber Cable, Outdoor, OM3, 2 Fibers, 2 x 12 AWG Conductors
PFC-302O16	Powered Fiber Cable, Outdoor, OM3, 2 Fibers, 2 x 16 AWG Conductors
PFC-304L12	Powered Fiber Cable, Indoor/Outdoor, OM3, 4 Fibers, 2 x 12 AWG Conductors
PFC-304L16	Powered Fiber Cable, Indoor/Outdoor, OM3, 4 Fibers, 2 x 16 AWG Conductors
PFC-304O12	Powered Fiber Cable, Outdoor, OM3, 4 Fibers, 2 x 12 AWG Conductors
PFC-304O16	Powered Fiber Cable, Outdoor, OM3, 4 Fibers, 2 x 16 AWG Conductors

1 AND 2-PORT POE EXTENDERS

- IP68 sealing—Enclosures are designed for outdoor installations with protection from moisture and the environment
- Automatically corrects for distance voltage drop in the hybrid cable
- Integrated Electrical Protection
- 60W 2-port variant enables 2 PoE or PoE+ devices to be connected via one hybrid cable
- 60W single port variation supports 802.3bt, Class 6 power levels. It can be equipped with SPF+ transceivers, and deliver 5 Gbps Ethernet over the copper port

MID/Part Number	Description
PFU-P-C-O-060-02	60W, 2 Port PoE Extender*
PFU-P-E-O-060-01	60W, 1 Port 5 Gbps PoE Extender

*The 60W, 2-port PoE Extender provides a maximum of 30W on each port.

PFU-P-C-O-060-02

POWER EXTENDERS/FIBER PASS-THRU

- Provide the same power management and electrical protection benefits of the PoE Extenders
- Designed to handle devices which require direct fiber input and DC power
- IP68 sealing—Enclosures are designed for outdoor installations with protection from moisture and the environment

PFU-48-C-O-060-01

MID/Part Number	Description
PFU-48-C-O-060-01	Power extender fiber pass through 48VDC
PFU-12-C-O-060-01	Power extender fiber pass through 12VDC

POWER SUPPLIES

- 57VDC Power Supply for use with Powered Fiber Cable System

MID/Part Number	Description
PFP-PX-S1	Power Express Distribution shelf with alarm module
PFP-PX-8M	Power Express Distribution module supports max. 8 Devices
PFP-PX-SF	Power Express Blank Slot Panel
PFP-SPS-S1	SPS Rectifier Power Distribution Shelf
PFP-SPS-1600M	1600W SPS Power Rectifier module
PFP-SPS-C1	SPS Rectifier Controller Display
PFP-SPS-SF	SPS Rectifier Blank Slot Panel

SURFACE MOUNT BOXES

- Supports structured cabling labeling and administration
- Protects your powered fiber cable and connections
- Provides a clean end point to terminate new indoor plenum powered fiber cables
- Supports multigig Wi-Fi access points
- Supports new and existing powered fiber cables

MID/Part Number	Description
760248944	Kit, SMB, 1 Fiber Port, 1 Power Port, Beige
760248943	Kit, SMB, 1 Fiber Port, 1 Power Port, White
760248942	Kit, SMB, 1 Fiber Port, 1 Power Port, Black
760249095	Kit, SMB, 2 Fiber Ports, 2 Power Ports, Beige
760249094	Kit, SMB, 2 Fiber Ports, 2 Power Ports, White
760249093	Kit, SMB, 2 Fiber Ports, 2 Power Ports, Black

PLENUM POWERED FIBER CABLE TRANSITION BOX

- Provides easy and secure transition point for indoor to outdoor powered fiber cables
- Termination point for permanent link powered fiber cables for future end-device installations
- Plenum rated enclosure
- Dimensions: 4.37 in (111 mm) x 14.18 in (360 mm) x 14.57 in (370 mm)
- Interface features, inside: (6) fiber LC duplex, (6) two wire terminals
- Interface capacity: 6 channels
- Surface mounted
- Input Power: 100 W per channel (NEC Class 2)
- Input voltage: 30 Vac | 60 Vdc per channel
- Safety Standards: UL2043 | UL1863 | UL62360 | CE
- Environmental Space: Indoor | Plenum
- Weight: 14 lbs (6.35 kg)
- Package quantity: 1

MID/Part Number	Description
760250853	PFC Transition Box, Plenum rated, cool gray

COMMSCOPE®